

## NATURAL RESOURCES BOARD AGENDA ITEM

Item No. 3.A.4.

**SUBJECT:** Hearing authorization for Order AM-03-06, proposed rules affecting ch. NR 432 pertaining to adoption of state regulations regarding NO<sub>x</sub> reductions from major electric generating units in Wisconsin to address interstate transport of pollutants.

**FOR: August 2006 BOARD MEETING**

**TO BE PRESENTED BY: Larry Bruss**

### SUMMARY:

The Clean Air Interstate Rule (CAIR) is a federal rule promulgated by the United States Environmental Protection Agency (USEPA) to reduce the interstate transport of ozone, fine particles and the precursors to those pollutants, NO<sub>x</sub> and SO<sub>2</sub>. To reduce interstate transport of the pollutants, the USEPA established emission budgets for NO<sub>x</sub> and SO<sub>2</sub> for 28 states in the eastern US. The CAIR allows the affected states flexibility to meet the budgets in various ways and to capture a mechanism to meet budgets through a state implementation plan (SIP). To aid in compliance, USEPA created an interstate trading program that establishes emissions budgets for power plants and three separate power plant emission trading structures addressing annual NO<sub>x</sub> emissions, ozone season NO<sub>x</sub> emissions, and annual SO<sub>2</sub> emissions. The department proposes that the state participate in the federal CAIR trading programs, but the department also proposes some discretionary alterations to the federal CAIR model trading rule regarding the allocation of the NO<sub>x</sub> allowances within the state. The CAIR specifically allows for state discretion in this area.

Proposed ch. NR 432 will specify the process for allocation of NO<sub>x</sub> allowances for the NO<sub>x</sub> Annual Trading Program and the NO<sub>x</sub> Ozone Season Trading Program. Proposed ch. NR 432 also specifies that the remaining elements of the NO<sub>x</sub> trading programs will be implemented and administered by the USEPA. The entirety of the SO<sub>2</sub> trading program will be implemented and administered by the USEPA and no state rules are proposed for addressing SO<sub>2</sub> emissions under the CAIR program.

Interested stakeholders include electric utilities, major electricity users, the Public Service Commission, Department of Commerce and the general public. Staff presented proposals regarding the NO<sub>x</sub> allocation structure at public information meetings held on March 29, April 5 and April 6, 2006 and at the Clean Air Act Task Force meeting on June 5, 2006. The staff received comments regarding aspects of the optional NO<sub>x</sub> allocation structures presented at the meetings.

**RECOMMENDATION:** Authorize the department to hold hearings on AM-03-06 creating ch. NR 432.

### LIST OF ATTACHED MATERIALS:

No <input type="checkbox"/>	Fiscal Estimate Required	Yes <input checked="" type="checkbox"/>	Attached
No <input checked="" type="checkbox"/>	Environmental Assessment or Impact Statement Required	Yes <input type="checkbox"/>	Attached
No <input type="checkbox"/>	Background Memo	Yes <input checked="" type="checkbox"/>	Attached

### APPROVED:

\_\_\_\_\_/S/\_\_\_\_\_  
Acting Bureau Director, Kevin Kessler

\_\_\_\_\_/07/20/2006\_\_\_\_\_  
Date

\_\_\_\_\_/S/\_\_\_\_\_  
Administrator, Al Shea

\_\_\_\_\_/07/20/2006\_\_\_\_\_  
Date

\_\_\_\_\_/S/\_\_\_\_\_  
Secretary, Scott Hassett

\_\_\_\_\_/07/20/2006\_\_\_\_\_  
Date

cc: Amy Lemberger - AD/5  
Carol Turner - LS/5

K. Kessler - AM/7  
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Marney Hoefer - AM/7  
Tom Steidl - LS/5

DATE: July 20, 2006

FILE REF: 4516-8

TO: Members of the Natural Resources Board

FROM: Scott Hassett, Secretary

SUBJECT: Background Memo for Hearing Authorization for Creation of Chapter NR 432 specifying the process of allocation of NO<sub>x</sub> allowances for the Clean Air Interstate Rule NO<sub>x</sub> Annual Trading Program and the NO<sub>x</sub> Ozone Season Trading Program.

## **Introduction**

On May 12, 2005, the United States Environmental Protection Agency (EPA) published the final version of the Clean Air Interstate Rule (CAIR) in Federal Register, 70 FR 25162. CAIR is a requirement to reduce the interstate transport of pollutants that significantly contribute to nonattainment of ozone and fine particles (PM<sub>2.5</sub>) pollution. The program is directed at reducing nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) emissions from the electric power sector across a 28-state region of the Eastern United States, including Wisconsin and the District of Columbia. The EPA is requiring these states to revise their state implementation plans (SIPs) to include control measures to reduce emissions of NO<sub>x</sub> and/or SO<sub>2</sub> before 2009 and again by the final compliance date in 2015.

Based on an assessment of the emissions contributing to interstate transport of air pollution and available control measures, EPA determined that achieving required reductions in the identified states by controlling emissions from power plants is highly cost effective.<sup>1</sup> The EPA developed a model cap and trade program for the states to achieve emission budget milestones set by CAIR.

CAIR is implemented in two phases. For NO<sub>x</sub>, Phase I is 2009-2014 and Phase II is 2015 and later. For SO<sub>2</sub>, Phase I is 2010-2014 and Phase II is 2015 and later. Across the 28-state CAIR region, EPA estimates NO<sub>x</sub> reductions from 2003 emission levels in Phase I of 53 percent and in Phase II of 61 percent reduction. For SO<sub>2</sub>, the reductions will be 45 percent in Phase I and 57 percent in Phase II from 2003 SO<sub>2</sub> emission levels.

## **Overview of CAIR Model Trading Program**

The backbone of the CAIR program is the optional trading program administered by the EPA covering the emissions from electric generating units (EGUs) larger than 25 megawatt electrical (MWe). This program consists of three separate markets: annual SO<sub>2</sub> emissions, annual NO<sub>x</sub> emissions and ozone-season NO<sub>x</sub> emissions. The NO<sub>x</sub> markets create two separate compliance requirements – the annual market addresses PM<sub>2.5</sub> concerns and the seasonal market addresses ozone concerns. CAIR establishes a budget for emissions of NO<sub>x</sub> and SO<sub>2</sub> for each state affected by CAIR. The states are required to meet these budgets. EPA's preferred approach is the model trading program administered by the EPA. If the state chooses to participate in the federal trading program, this budget is the number of allowances the

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<sup>1</sup> The definition of a power plant covered under CAIR is: "a stationary, fossil-fuel-fired combustion turbine serving at any time, since the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale." Cogeneration plants are defined as "a cogeneration unit serving at any time a generator with nameplate capacity of more than 25 MWe and supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale."

state has the discretion to allocate to sources. EPA has provided one “model” approach for that allocation, but provides flexibility for states to allocate NO<sub>x</sub> allowances differently and still use the federal trading structures. If a state chooses not to adopt the trading program, it either has to demonstrate legally enforceable programs that will reduce emissions sufficiently to meet the prescribed budget or be subject to federal regulation under a federal implementation plan (FIP).

#### **Annual SO<sub>2</sub> Emissions Market – Model Rule**

The annual SO<sub>2</sub> budget for Wisconsin is 87,264 tons in 2010 and 61,085 tons in 2015. The CAIR SO<sub>2</sub> trading program relies upon SO<sub>2</sub> allowances under Title IV of the Clean Air Act. Pre-2010 Title IV SO<sub>2</sub> allowances can be used for compliance with CAIR. Sulfur dioxide reductions are achieved by requiring sources to retire more than one allowance for each ton of SO<sub>2</sub> emissions. The emission value of an SO<sub>2</sub> allowance is independent of the year in which it is used rather it is based upon vintage year (i.e., the year in which the allowance is issued). Sulfur dioxide allowances of vintage 2009 and earlier offset one ton of SO<sub>2</sub> emissions (a retirement ratio of 1:1).

Allowances of vintage 2010 through 2014 offset one-half (0.5) of a ton of emissions (a retirement ratio of 2:1). Allowances of vintage 2015 and beyond offset roughly one-third (0.35) of a ton of emissions (a retirement ratio of 2.86:1). The allowances for SO<sub>2</sub> have already been allocated in perpetuity under the Acid Rain Program. Other than the retirement ratios, there are no further restrictions on the use of banked SO<sub>2</sub> allowances.<sup>2</sup>

#### **Annual NO<sub>x</sub> Emissions Market – Model Rule**

The annual NO<sub>x</sub> budget for Wisconsin is 40,759 tons in 2009 and 33,966 tons in 2015. The CAIR annual NO<sub>x</sub> trading program relies upon CAIR annual NO<sub>x</sub> allowances allocated by the states. The NO<sub>x</sub> SIP call allowances (for years 2003-2008)<sup>3</sup> and CAIR ozone-season NO<sub>x</sub> allowances (see below) cannot be used for compliance with the annual CAIR reduction requirement. Each state will have a share of the compliance supplement pool (CSP) that is comprised of 200,000 CAIR annual NO<sub>x</sub> allowances of vintage year 2009. The state may distribute the CSP allowances based upon criteria for early reduction and extreme hardship. There are no restrictions on the use of the banked annual allowances or CSP allowances.

#### **Ozone Season NO<sub>x</sub> Emission Market – Model Rule**

The ozone season NO<sub>x</sub> budget for Wisconsin is 17,987 tons in 2009 and 14,989 tons in 2015. The CAIR ozone-season NO<sub>x</sub> trading program relies upon CAIR ozone-season NO<sub>x</sub> allowances allocated by the states. Pre-2009 NO<sub>x</sub> SIP Call allowances can be banked into the program and used by CAIR-affected sources for compliance with the CAIR ozone-season NO<sub>x</sub> program. NO<sub>x</sub> SIP Call allowances will not be issued after 2008. Banked NO<sub>x</sub> SIP Call allowances cannot be used to meet the annual NO<sub>x</sub> emissions budget. There are no other restrictions on the use of banked allowances.

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<sup>2</sup> Banking of allowances allows a unit to reserve or “bank” an allowance for use in a future year. For example, a unit may be allocated allowances in 2009 that it may not use in 2009. Those allowances would be banked and would be available to the unit to use in future years for compliance.

<sup>3</sup> The NO<sub>x</sub> SIP call required a number of eastern states to submit state implementation plans to reduce NO<sub>x</sub> emissions to mitigate ozone transport in the eastern United States. Wisconsin was not required to submit a SIP. All of the states involved met the requirements by participating in the NO<sub>x</sub> Budget Trading Program administered by the USEPA.

### **Flexibility for States in Development of NO<sub>x</sub> Trading Programs**

For the most part, states have to implement the trading program as dictated by the EPA in the model rule. The states do have explicit flexibility in determining the following aspects of the program:

- Development of NO<sub>x</sub> allocation methodologies provided allocation information is submitted to EPA in the required time frame. This includes:
  - Cost of allowance distribution
  - Frequency of allocations (permanent v. periodically updated)
  - Basis for distribution (heat-input v. power output)
  - Use of allowance set-asides and their size (new source, energy efficiency, development of IGCC, renewables or small units).
- Provisions that allow individual units not regulated under CAIR to opt-in to the trading program so long as the units comply with Part 75 monitoring requirements.

### **“Abbreviated SIP” Option**

The EPA has created an “abbreviated SIP” option as an alternative to requiring a state to submit a full CAIR SIP. The abbreviated SIP allows the state the discretion in allocating the NO<sub>x</sub> allowances while reducing the administrative burden on the state with respect to the implementation and administration of the other aspects of the trading program including all aspects of the SO<sub>2</sub> emission markets and the compliance aspects of the NO<sub>x</sub> Annual and Ozone Season markets. These aspects are implemented and administered by the EPA.

## ***1. Why is this rule being proposed?***

This rule is being proposed to comply with the federal requirement promulgated in the Clean Air Interstate Rule (CAIR) to reduce reductions emissions of SO<sub>2</sub> and NO<sub>x</sub> in order to address the issue of interstate ozone and fine particle pollution. The Department proposes to fulfill this requirement by participating in the federal trading programs for major EGUs and using the abbreviated SIP option.

The CAIR allows states to participate in the federal program and have the discretion to make some alterations to the NO<sub>x</sub> allocation structures in the CAIR trading programs for both the NO<sub>x</sub> Annual market and the NO<sub>x</sub> Ozone Season market. The Department proposes that the state will submit an “abbreviated SIP” which will consist of the Department rules detailing the NO<sub>x</sub> allocation structure. All other aspects of the CAIR program, including the SO<sub>2</sub> Annual market, will be implemented and administered by the EPA.

The Department is proposing to use the abbreviated SIP option for two major reasons. First, it allows a state the discretion of creating a NO<sub>x</sub> allocation structure that promotes environmental values in Wisconsin through the encouragement of the development of renewable energy by rewarding energy efficiency and promoting new generation. Second, it significantly limits the administrative burden for Wisconsin by establishing a rule that is primarily administered by the EPA.

## 2. Summary of the rule

The guiding principle for the development of the Department's proposed rule was to utilize the federal rule to the maximum extent except where there is explicit authorization for state discretion and there is a strong rationale for the exercise of that discretion. The rationale was based on creating a rule that provides for equal or better environmental protection, is cost effective, improves the ability of the emission market to determine the least cost emission reduction, reduces the burden on the development of new generation, promotes energy efficiency, encourages renewable energy development, simplifies the rule structure and reduces the administrative burden. The proposed draft rule details the NO<sub>x</sub> allocation structure that would apply to both the annual and ozone season programs. Table 1 is a comparison of the NO<sub>x</sub> allocation structure for the FIP and the proposed draft rule.

**Table 1: Comparison of the NO<sub>x</sub> Allocation Structure for the Federal Implementation and the Proposed Draft Rule**

	<b>Federal Implementation Plan</b>	<b>Proposed Draft Rule</b>
Allocation basis- existing units	Heat input	Electrical output
Allocation basis- new units	Electrical output	Electrical output
Data used for baseline	Highest three years of five years of data	Highest three years of five years of data
Updating unit baseline	Permanent, once established	2011 and every five years thereafter
Updating state total baseline	2011 and every year thereafter	2011 and every year thereafter
Level of allocation	Unit level	Unit level
Reallocation	2011 and every year thereafter	2011 and every year thereafter
Length of allocation	Initial 2009-2014 allowances allocated, then four years in advance of vintage yr starting in 2011	Initial 2009-2014 allowances allocated, then four years in advance of vintage yr starting in 2011
Fuel weighting	1.0 for Coal 0.6 for Oil 0.4 for all others	No fuel weighting
New unit set-aside	Phase I: 5% Phase II: 3%	Phase I: 7% Phase II: 7%
Treatment of Renewable Energy	No inclusion of renewable energy	New renewable units able to apply to the main allocation pool once baseline established
Treatment of Energy Efficiency Projects	No inclusion of energy efficiency projects	Energy efficiency addressed through output based allocations
Treatment of Clean Coal Projects	No preference	No preference
Oversubscription to set-aside	Pro-rata reduction	Pro-rata reduction
Underscription to set-aside	Re-distribution to the main allocation pool	Re-distribution to the main allocation pool
Treatment of Combined Heat and Power units	Boiler units: (Useful Thermal Output/ 0.8) + (Electric generation * 3,413 mmBtu/MWh) Combustion Turbines: (Useful thermal output/0.8) + (Electrical generation * 3,413 Btu/KWh)	All units: (Useful output / 3.4 mmBtu/MWh) + (Electrical Generation Output)
Compliance Supplement Pool	Allocated based upon early reductions or extreme hardship	Allocated based upon early reductions (with lower emission rate than FIP) or extreme hardship.

The differences and the rationales between the FIP and the proposed draft rule are explained in the sections below.

**a. Allocation Basis – existing units**

The proposed draft rule calculates existing unit baselines using generation output data instead of heat input as in the FIP. There are a number of reasons for using output instead of heat input in calculating the unit baselines.

Most of the benefit from instituting an output based allocation structure stems from rewarding energy efficiency. In a cap and trade program such as CAIR, this increased energy efficiency does not necessarily result in a reduction in emissions since the number of allowances (representing the number of allowable tons of NO<sub>x</sub> emissions) stays the same in the program. Instead, energy efficiency reduces the demand for the NO<sub>x</sub> allowances since an efficient unit will need less allowances for compliance and in turn reduces the price of the allowances in the market thereby reducing the cost of compliance for all units in the market.

Allocating to existing units based upon output simplifies the program structure by treating units the same regardless of when the unit commenced operation. Under the FIP, new units (commencing operation on or after January 1, 2001) receive allowances based on the unit's output whereas existing units receive allowances based on heat input. Treating units differently, based on commencement operation date, creates a market imperfection that affects the market's ability to accurately access the least cost control.

Using generation output as a basis for allocation ties the NO<sub>x</sub> emissions directly with the economic commodity – electricity. This direct tie better approximates the real cost of emissions to society and allows the market to more effectively determine the least cost control.

Although there is no guarantee how electric utilities will use their allowances, under an output based allocation scheme, units in Wisconsin's ozone nonattainment areas would receive a smaller allocation than under a heat input based scheme. More NO<sub>x</sub> emission reductions in the nonattainment area means improved air quality in the area that most needs the emission reductions. The net result is a better environmental dispatch of the allowances for Wisconsin, even though the total state allocation stays the same.

The EPA argues that existing units should receive allocations based upon heat input because the historical generation data is uncertain and not subject to CEM reporting requirements like the historical heat input data. Although this may be true, there are a number of sources of generation data that have been certified by the units for the Energy Information Administration, the Wisconsin Public Service Commission and the Clean Air Markets Division of the USEPA. Additionally, a number of states have successfully relied upon generation data for allocations under the NO<sub>x</sub> SIP call such as Massachusetts, Connecticut and New Jersey. Illinois is proposing to base its CAIR NO<sub>x</sub> allocations to existing units on output generation as well.

In summary, calculating existing unit baselines using generation output improves the trading program through encouraging energy efficiency, reducing cost of compliance and simplifying the market structure.

## **b. Updating of Unit Baseline**

Under the FIP, the unit baseline, once calculated, does not change. This means that older plants will continue to receive allowances based on their historic heat input, even if their operation declines over time or even if they are shut down. New plants, on the other hand, will always receive allowances based on their first few years of operation, which are often low operating years, even if they operate at a higher level in the future.

For existing units, unit baselines will be initially established using 2000-2004 data in 2007. Under the proposed rule, the unit baseline is updated first in 2011 and then every five years thereafter. Updating of the unit baseline is an important aspect of having a unit baseline based upon generation output. In a program that allocates based upon a permanent baseline there is no incentive with respect to allocations to change the unit's energy efficiency since it will not change the allocation. In an updating baseline system, a unit will be rewarded for energy efficiency upgrades. The rewards are based on the unit consuming less fuel to get the same amount of energy and not being penalized for a reduction in fuel consumption.

Updating a unit baseline results in rewarding those units that have installed energy efficiency technology with the benefits as discussed in Section I above as well as creating an emissions market that more accurately represents the market that is producing the economic good. An emission market that is a good representation of the current electric market means that there is less distortion in the market leading to a more efficient distribution of allowances to the least cost control.

The updated baseline keeps the allocations in line with the actual operation of the plants. It phases out allocations to plants that are no longer running and increases allocations to new plants as they provide increased generation to consumers.

The EPA argues that updating unit baselines will create an incentive for a plant in a competitive electricity market to run more in order to qualify for more allowances in the next allocation period and that this results in higher potential emissions and higher compliance costs. However, this "generation subsidy" is small compared to other components of operating cost and other imperfections in the electricity market tend to limit this effect. Furthermore, Midwest Independent Systems Operators (MISO), not the individual utility, dictates the volume of electricity generated.

Utilities have argued that updating the unit baseline will decrease needed certainty in the number of allowances they will receive in the allocation. Under the FIP, there is uncertainty in the number of allowances since the state baseline is updated in 2011 and every year thereafter. Additionally, under the proposed draft rule, the utilities will have the certainty of the allocations for 2009 – 2014 in 2007 and then starting in 2011, allocations four years in advance of the compliance year.

Another argument against an updating unit baseline structure is that it discourages utilities from retiring older units because the utilities will lose the allowances associated with this unit once it stops generating. First, allowing units that are not contributing an economic good to continue to receive allowances does not make economic sense since it is rewarding units simply because the units were operating prior to 2001. Second, under the proposed draft rule, the update occurs every five years starting in 2011, so a retired unit will continue to receive allowances until the next update. For example, the update occurring in 2011 would use data from the years 2005-2009. If a unit was retired

in 2010, it would still receive an allocation until the next update occurs in 2016 since it has operating data upon which the unit baseline would be determined. This lag time between when a retired unit stops operating and when a retired unit stops receiving allowances would allow the utility to bank those allowances from the retired unit to use elsewhere for compliance. So, a unit would not be considered fully retired and not receiving allowances until, in an updating year, the unit had not generated electricity for five years.

### **c. Fuel Weighting or Fuel Adjustment Factors**

Under the proposed draft rule, fuel adjustment factors are not used. Fuel adjustment factors are used in the FIP to better approximate allocation of allowance to the higher emitters. Essentially, the fuel adjustment factor acts as a subsidy for the higher emitting units. The adjustment approximation bypasses the market to determining which unit is cost effective to have controls installed and which is cost effective to buy those allowances from the market. The fuel adjustment factors assume an efficiency rate across all units which is a gross simplification of the vast array of units in the market. Instead, by eliminating fuel weighting, the market incorporates the complex mix of variables, including unit efficiency, in determining which units should buy additional allowances from the market.

The elimination of the fuel adjustment factors reduces the distortions in the marketplace as discussed above. This allows the trading program market to do a more effective job of determining the most cost-effective compliance mix.

Fuel weighting allocates allowances with the highest factor for coal fired units, next highest for oil fired units and the lowest factor for natural gas fired units. This is directly opposite to the state energy priorities detailed in Wis. Stat. 1.12(4)(d).

### **d. Size of New Unit Set-Aside**

The size of the new unit set-aside is two percent higher in Phase I and four percent higher in Phase II than in the FIP. The major reasoning for setting the size of the new unit set-aside larger than the FIP is based upon the estimate of new generation growth of 2.5 percent developed by the Wisconsin Public Service Commission. Under this conservative estimate of growth, the staff determined that new generation in Wisconsin would need a 7 to 11 percent set-aside. A new unit set-aside that is large enough to accommodate all new units will reduce the uncertainty for new units associated with having to buy allowances from the market for operation. This results in a better environment for the development of new, more efficient, generation.

Additionally, under the proposed draft rule, if a new unit set-aside is undersubscribed (allowances left over after the application period), these leftover allowances are re-distributed to the main allocation pool. Therefore, if for a particular year, the new unit set-aside is too large the units in the main allocation pool will receive the left-over allowances in time to use those allowances in that compliance year.

### **e. Treatment of Renewable Units**

Under the proposed draft rule, new renewable units are eligible to receive allowances from the main allocation pool once the renewable unit establishes a baseline.



Inclusion of new renewable units in the allocation structure encourages and rewards the development of renewable energy. Through the development of more renewable energy, the demand for allowances for compliance will decrease and will result in a decrease in the cost of an allowance.

Additionally, by having renewable units eligible for allowances, it creates a compliance option for EGUs. For instance, an EGU can develop a new renewable unit, receive the allowances associated with the generation from that renewable unit and use those allowances for compliance at another unit.

#### **f. Treatment of Combined Heat and Power Units**

Under the FIP, thermal energy produced by combined heat and power units (CHPs) is adjusted using an assumed 80 percent efficiency rate for all units. Under the proposed draft rule, thermal energy is assumed to have a 100 percent efficiency rate like the efficiency rate used for electricity. CHPs have higher efficiency and lower emissions than traditional coal fired plants. The proposed draft rule uses the same methodology for all technologies and all fuels consistent with the approach for non-CHPs.

#### **g. Compliance Supplement Pool**

The FIP distributes the compliance supplement pool (CSP) to units that apply for the allowances based upon early emission reductions or based on extreme hardship using the criterion outline below. Only CSP allowances allocated in 2009 become part of the program.

Distribution based on Early Reduction – Under the FIP, a unit may apply for early reduction credits from the CSP if the following criteria are established:

- if the unit's average annual NO<sub>x</sub> emission rate from 2007 or 2008 is less than 0.25 lb/mmBtu;
- if the unit is included in a NO<sub>x</sub> averaging plan under the Acid Rain Program for such year;
- if the unit's NO<sub>x</sub> averaging emission rate for such year equal to or less than the actual weighted average NO<sub>x</sub> emission rate for the year before such year; and
- if the unit achieves NO<sub>x</sub> emission reduction in 2007 and 2008.

Distribution based on Extreme Hardship – The EPA's determination of extreme hardship is based on whether "the compliance with CAIR NO<sub>x</sub> emissions limitation for the control period in 2009 would create an undue risk to the reliability of electricity supply during such control period." The demonstration by the generator must include a showing that it would not be feasible for the owners and operators of the unit to:

- obtain a sufficient amount of electricity from other electricity generation facilities; or
- obtain sufficient amount of CAIR NO<sub>x</sub> allowances to prevent such undue risk.

The proposed draft rule would alter the structure in allocating the CSP allowance in one respect. For early reduction credit the unit's average annual NO<sub>x</sub> emission rate from 2007 or 2008 would be less than 0.15 lb/mmBtu instead of the 0.25 lb/mmBtu emission limit stated above. This emission level

represents the level in the NO<sub>x</sub> SIP call as well as the modeled 2009 emission rate for the CAIR. The criteria for eligibility for extreme hardship in the proposed draft rule would be the same as the FIP.

### ***3. How this proposal affects existing policy.***

This proposal is consistent with existing state statutory policy for ozone rules under s. 285.11(6), Wis. Stats., to revise and implement state implementation plans for the purpose of prevention, abatement and control of air pollution in Wisconsin.

### ***4. Has the Board dealt with these issues before? If so, when and why?***

Most recently the NRB adopted ch. NR 428 in 2000 regulating the emissions of NO<sub>x</sub> from certain EGUs in the state. The regulations became part of the 1-Hour Ozone Attainment Demonstration for southeastern Wisconsin and primarily involved operation and performance requirements for new and existing stationary sources above specified size thresholds. The new source requirements apply in 6 southeastern Wisconsin counties while an existing stationary source program applies to those same 6 counties plus Sheboygan Co.

Prior to NR 428, the agency developed and held hearings on a regulation proposal addressing EPA's NO<sub>x</sub> SIP call (1997). The proposed NO<sub>x</sub> SIP call program incorporated a NO<sub>x</sub> emissions allocation and trading structure similar in general structure and approximate control level to the proposed Ozone Season NO<sub>x</sub> program addressed here. The call to Wisconsin for a NO<sub>x</sub> SIP to address both 1-hour ozone and 8-hour ozone interstate transport was withdrawn by EPA in 2000 pending resolution of litigation surrounding both the NO<sub>x</sub> SIP call and the new 8-hour ozone standard. It has not been reinstated to address the current 8-hour ozone standard because this CAIR SIP addresses the same issue.

The Department has historically addressed source-specific SO<sub>2</sub> emissions limitations for specific industrial facilities associated with monitored SO<sub>2</sub> nonattainment and has developed state regulations (NR 409) implementing both Wisconsin Acid Rain statutes and a federal Acid Rain control program. NR 417 and NR 418 regulate SO<sub>2</sub> emissions from the major electric generating units. The SO<sub>2</sub> allowance allocations associated with the federal acid rain program provide the credits further regulated under the CAIR SO<sub>2</sub> trading program. The SO<sub>2</sub> control portion of CAIR will initially be federally-administered under a federal implementation plan and are not addressed in this proposed rule.

### ***5. Who will be affected by the proposed rule? How will they be affected?***

The Department has identified 90 fossil-fuel fired electric generating units that may be affected by the CAIR in the state. All affected sources under the CAIR must comply with the requirements of the rules. This includes obtaining the necessary number of allowances for each compliance year to cover the emissions from the unit and with the monitoring, reporting, and recordkeeping requirements of the rules. The affected units may comply with the requirements 1) by installing pollution control devices; 2) by transferring excess allowances from other units in the utility's system or 3) by buying additional allowances from the market. Additionally, utilities that do not use all of a single unit's allowances may transfer those allowances to other units in its system or sell those excess allowances in the market.

Renewable units that generate electricity may also be impacted by the proposed rule. Under the proposed draft rule, a new renewable energy unit will be eligible to receive allowances that it then can sell in the allowance market to offset the higher costs often associated with the development of renewable energy.

## ***6. Information on environmental analysis***

An environmental analysis of the impact of the proposed rule revisions is not needed because these changes are considered to be a Type III action under s. NR 150.03(3), Wis. Adm. Code. A Type III action is one that normally does not have the potential to cause significant environmental effects, normally does not significantly affect energy usage and normally does not involve unresolved conflicts in the use of available resources.

## ***7. Initial regulatory flexibility analysis***

Under Wisconsin law, none of the electric generating units that are impacted by the CAIR are a small business. CAIR imposes no reporting, compliance or performance standards on small businesses.

As part of the federal rule promulgation process, the EPA is required under the Regulatory Flexibility Act to consider potential impacts of proposed regulations on small entities. The small entity definition used by EPA includes: (1) electric utilities that produces 4 billion kilowatt-hours or less; (2) a small governmental jurisdiction that is a government of a city, county, town, district, or special district of less than 50,000; and (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field. After considering the economic impacts of the rule on small entities, EPA has concluded that these rules will not have a significant economic impact on a substantial number of small entities and has determined that it is not necessary to prepare a regulatory flexibility analysis for this rule.

## Fiscal Estimate — 2003 Session

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Updated	LRB Number	Amendment Number if Applicable
<input type="checkbox"/> Corrected	<input type="checkbox"/> Supplemental	Bill Number	Administrative Rule Number NR 432

### Subject

NR 432 for NOx Reductions from Major Electric Generating Units in Wisconsin

### Fiscal Effect

State: ☐ No State Fiscal Effect

Check columns below only if bill makes a direct appropriation  
or affects a sum sufficient appropriation.

- |  |   |
|--|---|
| <input type="checkbox"/> Increase Existing Appropriation | <input type="checkbox"/> Increase Existing Revenues |
| <input type="checkbox"/> Decrease Existing Appropriation | <input type="checkbox"/> Decrease Existing Revenues |
| <input type="checkbox"/> Create New Appropriation        |   |

☒ Increase Costs — May be possible to absorb  
within agency's budget.

☒ Yes ☐ No

☐ Decrease Costs

Local: ☐ No Local Government Costs

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Increase Costs  | 3. <input type="checkbox"/> Increase Revenues                          |
| <input checked="" type="checkbox"/> Permissive <input type="checkbox"/> Mandatory | <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory |
| 2. <input type="checkbox"/> Decrease Costs  | 4. <input type="checkbox"/> Decrease Revenues                          |
| <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory            | <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory |

5. Types of Local Governmental Units Affected:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Towns            | <input type="checkbox"/> Villages       | <input checked="" type="checkbox"/> Cities |
| <input type="checkbox"/> Counties         | <input type="checkbox"/> Others         |  |
| <input type="checkbox"/> School Districts | <input type="checkbox"/> WTCS Districts |  |

### Fund Sources Affected

☐ GPR ☐ FED ☒ PRO ☐ PRS ☐ SEG ☐ SEG-S

### Affected Chapter 20 Appropriations

20.370 2 (bg)

### Assumptions Used in Arriving at Fiscal Estimate

SUMMARY OF RULE -- The Clean Air Interstate Rule (CAIR) is a federal rule promulgated by the United States Environmental Protection Agency (USEPA) to reduce the interstate transport of ozone, fine particles and the precursors to those pollutants, NO<sub>x</sub> and SO<sub>2</sub>. To reduce interstate transport of the pollutants, the USEPA established emission budgets for NO<sub>x</sub> and SO<sub>2</sub> for 28 states in the eastern US. The CAIR allows the affected states flexibility to meet the budgets in various ways. However, to aid in compliance, USEPA created a "model trading rule" that establishes emissions budgets for power plants and three separate power plant emission trading programs: an annual NO<sub>x</sub> program, an ozone season NO<sub>x</sub> program, and an annual SO<sub>2</sub> program. The department proposes that the state participate in the CAIR trading programs, but the department also proposes to make some discretionary changes to the model trading rule regarding the allocation of the NO<sub>x</sub> allowances within the state.

Creation of Chapter NR 432 will specify the process for allocation of NO<sub>x</sub> allowances for the NO<sub>x</sub> Annual Trading Program and the NO<sub>x</sub> Ozone Season Trading Program. Chapter NR 432 also specifies that the remaining elements of the NO<sub>x</sub> trading programs will be implemented and administered by the USEPA. The entirety of the SO<sub>2</sub> trading program will be implemented and administered by the USEPA.

FISCAL IMPACT -- The Department of Natural Resources is expected to incur minimal additional cost to implement and administer the rules. There will be costs associated with the collection of operating data from the affected units as well as yearly updates to the allocations starting in 2011. The total estimated impact on Department resources is approximately one-twentieth of a FTE per year, which, assuming \$80,000 per FTE salary and fringe, will be \$4,000 annually. The reductions in NO<sub>x</sub> emissions from the rule is not expected to significantly impact the Air Program's emission fee revenues under the current fee structure.

(continued...)

### Long-Range Fiscal Implications

Prepared By:	Telephone No.	Agency
Joseph Polasek	266-2794	Department of Natural Resources
Authorized Signature	Telephone No.	Date (mm/dd/ccyy)
	266-2794	

## Fiscal Estimate — 2003 Session

### Page 2 Assumptions Narrative Continued

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number NR 432

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#### Assumptions Used in Arriving at Fiscal Estimate – Continued

The rule is not expected to have any impact on state facilities and will impact only one local government facility operated by Manitowoc Public Utility.

The rule potentially impacts 90 electric generating units across the state. The units will receive an allocation of allowances based upon a formula in the regulation. The exact pollution controls installed at each unit are not prescribed by rule instead the units have the flexibility to decide whether to install pollution controls to reduce emissions or to obtain additional allowances from the market over the amount of allowances initially allocated to the units.

A potential cost of complying with the CAIR requirements is estimated by assuming the electric utilities will install control equipment sufficient to reduce emissions equal to allocations under the proposed state rule. However, the utilities can utilize open market trading to obtain emission allowances to achieve significantly lower costs for demonstrating compliance than projected in the analysis. This is particularly true for smaller utilities which could potentially obtain all emission allowances through the trading market. Therefore, this estimate is expected to represent a high cost and not the average anticipated cost.

The analysis is based on cost factors and parameters for control technologies as determined by USEPA for use in the Integrated Planning Model. This information represents general costs at one point in time for the electric utility sector and therefore is subject to market changes and may vary for specific applications. The program cost is determined by applying the cost information to all generating units and selecting the most cost-effective control options until each utility meets CAIR allocation levels under the proposed state program.

The analysis results are reported as an annual cost and are to run for the lifetime of the equipment. For NO<sub>x</sub> control the estimated cost is 46 million dollars per year by 2009 and is projected to rise to 71 million dollars per year by 2015. The control of SO<sub>x</sub> emissions is estimated to be 145 million dollars in 2010 and also projected to rise by 2015 to 218 million dollars per year. This yields an estimated total cost for NO<sub>x</sub> and SO<sub>x</sub> control of 191 million dollars per year in 2009 / 2010 timeframe and 289 million dollars per year by 2015. Manitowoc Public Utility (MPU) is the one government entity directly affected by the rule. MPU's total NO<sub>x</sub> and SO<sub>x</sub> control costs are estimated to be 4.5 million dollars per year for 2009 and after.

Included in the analysis cost is We-Energies compliance with the USEPA Consent Decree. These requirements result in lower emissions and are therefore beyond the potential cost of compliance with the CAIR program alone. Using the same cost factors the Consent Decree costs are estimated to be 60 million dollars per year in 2009 / 2010 and 131 million dollars per year by 2015.

The potential impact to electricity costs is estimated by allocating all control costs over the generation from the affected units. In 2009 the analysis yields a cost impact of 0.4 cents per kWh and 0.6 cents per kWh by 2015.

The potential CAIR program costs with open trading is estimated by applying controls to units identified by the Integrated Planning Model for this case. This approach resulted in significantly lower total program costs of 118 and 159 million dollars per year in 2009 and 2015, respectively. These costs relate to an electricity price impact of 0.3 to 0.4 cents per kWh.

## Fiscal Estimate Worksheet — 2003 Session

Detailed Estimate of Annual Fiscal Effect

<input checked="" type="checkbox"/> Original <input type="checkbox"/> Updated  <input type="checkbox"/> Corrected <input type="checkbox"/> Supplemental	LRB Number  Bill Number	Amendment Number if Applicable  Administrative Rule Number NR 432
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Subject

NR 432 for NOx Reductions from Major Electric Generating Units in Wisconsin

One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

Annualized Costs:		Annualized Fiscal Impact on State Funds from:	
		Increased Costs	Decreased Costs
A. State Costs by Category			
State Operations — Salaries and Fringes		\$ 4,000	\$ -
(FTE Position Changes)		( 0.05 FTE )	( - FTE )
State Operations — Other Costs			-
Local Assistance			-
Aids to Individuals or Organizations			-
Total State Costs by Category		\$	\$ -
B. State Costs by Source of Funds		Increased Costs	Decreased Costs
GPR		\$	\$ -
FED			-
PRO/PRS			-
SEG/SEG-S			-
State Revenues	Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Revenue	Decreased Revenue
GPR Taxes		\$	\$ -
GPR Earned			-
FED			-
PRO/PRS			-
SEG/SEG-S			-
Total State Revenues		\$	\$ -

### Net Annualized Fiscal Impact

	<u>State</u>	<u>Local</u>
Net Change in Costs	\$ 4,000	\$
Net Change in Revenues	\$	\$

Prepared By:  Joe Polasek	Telephone No. 266-2794	Agency Department of Natural Resources
Authorized Signature	Telephone No. 266-2794	Date (mm/dd/ccyy)

ORDER OF THE STATE OF WISCONSIN  
NATURAL RESOURCES BOARD  
CREATING RULES

The Wisconsin Natural Resources Board proposes an order to **create** NR 432 relating to the establishment of provisions for major electric generating units in Wisconsin to comply with the Clean Air Interstate Rule (CAIR) promulgated by the U.S. Environmental Protection Agency.

AM-03-06

Summary Prepared by the Department of Natural Resources

1. **Statute interpreted:** s. 285.11(6), Stats. The State Implementation Plan developed under s. 285.11(6), Stats., is revised.

2. **Statutory authority:** ss. 227.11(2)(a), 227.14(1m) and 285.11(1) and (6), Stats.

3. **Explanation of agency authority:**

Section 227.11(2)(a), Stats., gives state agencies general rule-making authority. Section 227.14(1m) Stats., allows state agencies to use the format of federal regulations if the proposed state rule is to be administered in a manner identical or similar to the federal rule. Section 285.11(1) Stats., gives the Department the authority to promulgate rules to implement and consistent with ch. 285, Stats. Section 285.11(6), Stats., authorizes the Department to develop and revise a state implementation plan for the prevention, abatement and control of air pollution.

4. **Related statute or rule:**

Chapter NR 428, Wis. Adm. Code, regulates the emissions of NO<sub>x</sub> from major stationary sources in ozone nonattainment areas including electric generating units. Chapters NR 417 and NR 418, Wis. Adm. Code, regulate SO<sub>2</sub> emissions from stationary sources in SO<sub>2</sub> nonattainment areas and statewide, including electric generating units.

5. **Plain language analysis:**

EPA has promulgated federal rules to reduce the interstate transport of fine particles and ozone (Clean Air Interstate Rule – CAIR) for 28 states including Wisconsin. CAIR focuses on reductions of emissions of nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) from fossil-fuel-fired electric generating units (EGUs). The federal rule caps emissions from EGUs in two phases (2009 and 2015) and allows EGUs to meet their respective emissions caps through installation of controls or by trading emission allowances through a federally administered trading program. The federal rule allows states to implement the federal rule through various state-specific options including varying the structure of the allocation of NO<sub>x</sub> allowances to state utilities from the federal model rule. This proposed rule involves the NO<sub>x</sub> allocation structure for the CAIR NO<sub>x</sub> annual allowances and the CAIR NO<sub>x</sub> ozone season allowances. The structure is the same for the two programs. The SO<sub>2</sub> program is administered in its entirety by the U.S. EPA and is not addressed by this rule.

The main allocation pool consists of the allowances allocated to the state in its state budget minus allowances in the new unit set-aside. The NO<sub>x</sub> allowances are allocated from the main allocation pool to existing units (those units commencing operation before January 1, 2001) based on the average of the top three years of electric generation over a five year period. The allowances are distributed to the units in the main allocation pool based upon a unit's percentage share of the total generation for all units.

For new units (those units commencing operation on or after January 1, 2001), a new unit set-aside of 7% of the state budget is proposed. New units are allocated allowances from this set-aside based on the unit's NO<sub>x</sub> emissions in the previous year until the unit has operated for five years and has established a baseline. (Once a new unit has operated 5 years and established a baseline, the unit's allowances will be allocated from the main allocation pool, not the new unit set-aside.) Allowances from the new unit set-aside are applied for and allocated in the compliance year starting in 2009. If the new unit set-aside is oversubscribed, the set-aside allowances are distributed to the applicants on a percentage basis. If the new unit set-aside is undersubscribed, the remaining set-aside allowances are distributed to the units in the main allocation pool.

Vintage year 2009-2014 allowances are allocated from the main allocation pool in 2007 based on generation data from 2000-2004. Starting in 2011, allowances from the main allocation pool are allocated yearly, four years in advance of the compliance year. In 2011, the unit baseline is updated every five years to reflect current operating data and the state baseline is updated every year to incorporate new units into the main allocation pool that have established a baseline.

Combined heat and power units receive allowances based on electricity generation and useful thermal energy produced.

The compliance supplement pool (CSP) consists of additional CAIR NO<sub>x</sub> annual allowances which are distributed only in calendar year 2009 to CAIR NO<sub>x</sub> units which demonstrate that they achieved early emission reductions in 2007 and 2008 at the 2009 CAIR level of compliance or compliance would create extreme hardship for the unit. There are 4,989 CAIR NO<sub>x</sub> annual allowances available for distribution from the CSP. If there are excess allowances after the 2009 distribution, these allowances are retired.

## **6. Summary of, and comparison with, existing or proposed federal regulation:**

The federal regulation that addresses interstate transport of air pollution, the Clean Air Interstate Rule (CAIR), is found at 40 CFR Part 97. Part 97 details the Federal Implementation Plan (FIP) which creates an emission trading market across the 28 eastern states for NO<sub>x</sub> and SO<sub>2</sub> emissions from major electric generating units implemented and administered by the EPA. The CAIR gives the states the discretion to adopt an allocation structure for the NO<sub>x</sub> allowances for the CAIR Annual NO<sub>x</sub> and the CAIR ozone season NO<sub>x</sub> trading programs while relying on the FIP for the implementation of the trading programs at the federal level. This proposed rule covers the NO<sub>x</sub> allocation structures for both the CAIR Annual NO<sub>x</sub> and CAIR ozone season trading programs.

## **7. Comparison with rules in adjacent states:**

Illinois, Indiana, Iowa, Michigan and Minnesota all are subject to the requirement to submit a CAIR State Implementation Plan. From a review of the preliminary drafts of the states' rules and discussions with each state's rule drafter, it appears that all five states will participate in the federal trading program like the proposal by the department. Iowa has finalized and adopted its CAIR SIP which will be effective



July 12, 2006. None of the remaining adjacent states have finalized their rules.

#### **8. Summary of factual data and analytical methodologies:**

The proposed structure for the NO<sub>x</sub> allocations is based upon the review of several guidance documents, technical documents and modeling prepared by the United States Environmental Protection Agency, the State and Local Air Pollution Control Agencies associations (STAPPA/ ALAPCO), Lake Michigan Air Directors Consortium (LADCO) and the National Renewables Energy Lab. These documents are available through the DNR's website at [www.dnr.wi.gov/org/aw/air/hot/8hrozonestd/cairbart/](http://www.dnr.wi.gov/org/aw/air/hot/8hrozonestd/cairbart/) or available from Marney Hoefer at (608) 267-0577 or [Margaret.hoefer@dnr.state.wi.us](mailto:Margaret.hoefer@dnr.state.wi.us). In addition, the proposed structure is based in part on comments received through a series of public information meetings and presentations to the Clean Air Act Task Force which DNR staff conducted.

#### **9. Analysis and supporting documents used to determine effect on small business or in preparation of economic impact report:**

The proposed rule is not expected to have a significant effect on small businesses. The major EGUs subject to the emission reduction requirements of CAIR are not small businesses. Any costs which EGUs expend to comply with the CAIR requirements are likely to be passed on to their customers, which will include small businesses. In preparing the economic impact report, staff of the Department of Natural Resources relied on modeling results from Integrated Planning Model (IPM) to determine the expected controls installed by EGUs in Wisconsin. Using the IPM results, staff determined the expected cost of control. Additionally, staff reviewed the control costs for major EGUs associated with operating within the number of allowances the units are initially allocated under the proposed draft rule.

#### **10. Effect on small business:**

The proposed rule is not expected to have a significant effect on small businesses. Because EGUs may pass along the costs of complying with CAIR to their customers, the proposed rule may minimally increase electricity rates, resulting in small businesses having to pay more for electricity.

#### **11. Agency contact person:**

Marney Hoefer, Bureau of Air Management, Department of Natural Resources  
Phone (608) 267-0577  
[Margaret.Hoefer@dnr.state.wi.us](mailto:Margaret.Hoefer@dnr.state.wi.us)

#### **12. Place where comments are to be submitted and deadline for submission:**

Written comments may be submitted at the public hearings, by regular mail, fax or email to:

Marney Hoefer AM/7  
Department of Natural Resources  
Bureau of Air Management  
PO Box 7921  
Madison WI 53707  
Fax: (608) 267-0560

Margaret.Hoefer@dnr.state.wi.us

Written comments may also be submitted to the Department of Natural Resources using the Wisconsin Administrative Rules Internet Web site at <http://adminrules.wisconsin.gov>.

Hearing dates and submission deadlines are to be determined.

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SECTION 1. Chapter NR 432 is created to read:

CHAPTER NR 432

ALLOCATION OF CLEAN AIR INTERSTATE RULE NO<sub>x</sub> ALLOWANCES

**NR 432.01 Applicability; purpose.** (1) APPLICABILITY. (a) This chapter applies to the owner or operator of any source that includes a CAIR NO<sub>x</sub> unit or a CAIR renewable unit. A CAIR NO<sub>x</sub> unit is any stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine which has served at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale, except for those units that are excluded under par. (b).

(b) The following units are not CAIR NO<sub>x</sub> units:

1. Any cogeneration unit serving a generator which does not supply, in any calendar year, more than one-third of its potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

2. Any solid waste incineration unit that commenced operation before January 1, 1985 and which had an average annual consumption of non-fossil fuel for 1985 to 1987 exceeding 80% of the unit's total fuel consumption, on a Btu basis, and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80% of the unit's total fuel consumption, on a Btu basis.

3. Any solid waste incineration unit that commenced operation on or after January 1, 1985 and which had an average annual consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80% of the unit's total fuel consumption, on a Btu basis, and an average annual consumption of

non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80% of the unit's total fuel consumption, on a Btu basis.

(c) If a unit no longer meets the applicable exclusion in par. (b), the unit shall become a CAIR NO<sub>x</sub> unit starting on January 1 of the first year following the year in which the unit ceases to meet the exclusion requirements.

(2) PURPOSE. This chapter is adopted under s. 285.11, Stats., to allocate the NO<sub>x</sub> allowances for the CAIR NO<sub>x</sub> annual trading program and the CAIR NO<sub>x</sub> ozone season trading program. The purpose of this chapter is to implement only those parts of the CAIR NO<sub>x</sub> annual trading program and the CAIR NO<sub>x</sub> ozone season trading program that is administered by the EPA under the federal implementation plan for the CAIR relating to the allocation of CAIR NO<sub>x</sub> allowances.

**Note:** This chapter modifies the schedule and methodology for allocating CAIR nitrogen oxides (NO<sub>x</sub>) allowances that are set forth in the federal implementation plan. This chapter is not intended to modify in any other way the implementation or administration in Wisconsin of the federal implementation plan for CAIR. The CAIR NO<sub>x</sub> federal implementation plan is published in 40 CFR, part 97.

**NR 432.02 Definitions.** The definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

(1) "Actual weighted average NO<sub>x</sub> emission rate" means, for an NO<sub>x</sub> averaging plan under s. NR 409.065(7), for a year the sum of the products of the actual annual average NO<sub>x</sub> emission rate and actual annual heat input, as determined in accordance with 40 CFR part 75 transfers, for all units in the NO<sub>x</sub> averaging plan for the year divided by the sum of the actual annual heat input, as determined in accordance with 40 CFR part 75, for all units in the NO<sub>x</sub> averaging plan for the year.

(2) "Allocate" or "allocation" means, with regard to CAIR NO<sub>x</sub> allowances, the determination by the department of the amount of CAIR NO<sub>x</sub> allowances to be credited to a CAIR NO<sub>x</sub> unit, a CAIR renewable unit, a new unit set-aside, or other entity.

(3) "Biomass" means a resource that derives energy from wood or plant material or residue, biological waste, crops grown for use as a resource or landfill gases. "Biomass" does not include garbage, as defined in s. 289.01(9), Stats., or nonvegetation – based industrial, commercial or household waste, except that "biomass" includes refuse-derived fuel used for a renewable facility that was in service before January 1, 1998.

(4) "Boiler" means an enclosed fossil fuel-fired or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(5) "CAIR" means the federal clean air interstate rule promulgated in 40 CFR part 97.

(6) "CAIR designated representative" means, for a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source, the natural person who is authorized by the owners and operators of the source and all units at the source, in accordance with 40 CFR 97 subparts BB and HH and subparts BBBB and HHHH, to represent and legally bind each owner and operator in matters pertaining to the CAIR NO<sub>x</sub> annual trading program and the CAIR NO<sub>x</sub> ozone season trading program.

(7) "CAIR NO<sub>x</sub> allowance" means a limited authorization issued by the department under this chapter, to emit one ton of nitrogen oxides during the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR NO<sub>x</sub> program. Unless otherwise qualified, the term means a CAIR NO<sub>x</sub> annual allowance and a CAIR NO<sub>x</sub> ozone season allowance.

(8) "CAIR NO<sub>x</sub> annual allowance" means a limited authorization issued by the department under this chapter, to emit one ton of nitrogen oxides during a calendar year for which the authorization is allocated or during a calendar year of any calendar year thereafter under the CAIR NO<sub>x</sub> annual trading program.

(9) "CAIR NO<sub>x</sub> annual trading program" means a multi-state nitrogen oxides air pollution control and emission reduction program established by the administrator in accordance with this chapter, 40 CFR 97 subparts AA to HH and 40 CFR 51.123(p) and 52.35, as a means of mitigating interstate transport of

fine particulates and nitrogen oxides.

(10) "CAIR NO<sub>x</sub> ozone season allowance" means a limited authorization issued by the department under this chapter, to emit one ton of nitrogen oxides during an ozone season for which the authorization is allocated or during an ozone season of any calendar year thereafter under the CAIR NO<sub>x</sub> ozone season trading program or a limited authorization issued by a permitting authority for a control period during 2003 through 2008 under the NO<sub>x</sub> budget trading program in accordance with 40 CFR 51.121(p) to emit one ton of nitrogen oxides during a control period, provided that the provision in 40 CFR 51.121(b)(2)(ii)(E) of this chapter may not be used in applying this definition and the limited authorization may not have been used to meet the allowance-holding requirement under the NO<sub>x</sub> budget trading program.

(11) "CAIR NO<sub>x</sub> ozone season trading program" means a multi-state nitrogen oxides air pollution control and emission reduction program established by the administrator in accordance with this chapter, 40 CFR 97 subparts AAAA through HHHH and 40 CFR 51.123(ee) and 52.35, as a means of mitigating interstate transport of ozone and nitrogen oxides.

(12) "CAIR NO<sub>x</sub> source" means a source that includes one or more CAIR NO<sub>x</sub> units.

(13) "CAIR NO<sub>x</sub> unit" means a unit that is subject to the CAIR NO<sub>x</sub> annual trading program under 40 CFR 97.104 and the CAIR NO<sub>x</sub> ozone trading program under 40 CFR 97.304.

(14) "CAIR renewable unit" means an installed and operational electric generating facility, located in this state, commencing operation on or after January 1, 2001 that either:

(a) Generates renewable energy serving a generator with nameplate capacity greater than 25 MWe.

(b) Consists of units combined pursuant to s. 299.83, Stats., serving generators with combined nameplate capacity of greater than 25 MWe.

(15) "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during a specified year.

(16) "Cogeneration unit" has the meaning given in s. NR 409.02(21).

(17) "Combustion turbine" means an enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine. If the enclosed device is combined cycle, the combustion turbine includes any associated duct burner, heat recovery steam generator, and steam turbine.

(18) "Commence commercial operation" means, with regard to a unit:

(a) To have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, except as provided in 40 CFR 97.105, 97.184(h), 97.304 or 97.384(h).

1. For a unit that is a CAIR NO<sub>x</sub> unit under 40 CFR 97.104 or 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in par. (a) (intro.) and that subsequently undergoes a physical change, other than replacement of the unit by a unit at the same source, the date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

2. For a unit that is a CAIR NO<sub>x</sub> unit under 40 CFR 97.104 or 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in par. (a) (intro.) and that is subsequently replaced by a unit at the same source, e.g., repowered, the date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in par. (a) (intro.) or (b) (intro.) as appropriate.

(b) Notwithstanding par. (a) (intro.) and except as provided in 40 CFR 97.105 or 97.305, for a unit that is not a CAIR NO<sub>x</sub> unit under 40 CFR 97.104 or 97.304 on the later of November 15, 1990 or

the date the unit commences commercial operation as defined in par. (a) (intro.), the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NO<sub>x</sub> unit under 40 CFR 97.104 or 97.304.

1. For a unit with a date for commencement of commercial operation as defined in par. (b) (intro.) and that subsequently undergoes a physical change, other than replacement of the unit by a unit at the same source, the date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.

2. For a unit with a date for commencement of commercial operation as defined in par. (b) (intro.) and that is subsequently replaced by a unit at the same source, e.g., repowered, the date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in par. (a) (intro.) or (b) (intro.) as appropriate.

(19) "Conventional resource" means a resource that derives energy from coal, oil, nuclear power or natural gas. However, a fuel cell that derives energy from natural gas is not a conventional resource.

(20) "Generator" means a device that produces electricity.

(21) "Gross electrical output" means the total electrical output from an electrical generating unit before making any deductions for the energy output used in any way to produce the energy.

(22) "Heat input" means, with regard to a specified period of time, the product, in mmBtu/time, of the gross calorific value of the fuel, in Btu/lb, divided by 1,000,000 Btu/mmBtu and multiplied by the fuel feed rate into a combustion device, in lb of fuel/time, as measured, recorded, and reported to the administrator by the CAIR designated representative and determined by the administrator in accordance with 40 CFR 97 subpart HH and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(23) "Heat input rate" means the amount of heat input, in mmBtu, divided by unit operating time,

in hr, or, with regard to a specific fuel, the amount of heat input attributed to the fuel, in mmBtu, divided by the unit operating time in hr during which the unit combusts the fuel.

(24) "MWh" means megawatt hours.

(25) "Nameplate capacity" means, starting from the initial installation of a generator, the maximum electrical generating output, in MWe, that the generator is capable of producing on a steady state basis and during continuous operation, when not restricted by seasonal or other deratings, as of the installation as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output, in MWe, that the generator is capable of producing on a steady state basis and during continuous operation, when not restricted by seasonal or other deratings, the increased maximum amount as of the completion as specified by the person conducting the physical change.

(26) "Operator" means any person who operates, controls, or supervises a CAIR NO<sub>x</sub> unit or a CAIR NO<sub>x</sub> source and shall include, but not be limited to, any holding company, utility system, or plant manager of a unit or source.

(27) "Owner" means any of the following persons:

(a) Any holder of any portion of the legal or equitable title in a CAIR NO<sub>x</sub> unit at the source or the CAIR NO<sub>x</sub> unit.

(b) Any holder of a leasehold interest in a CAIR NO<sub>x</sub> unit at the source or the CAIR NO<sub>x</sub> unit.

(c) Any purchaser of power from a CAIR NO<sub>x</sub> unit at the source or the CAIR NO<sub>x</sub> unit under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner may not include a passive lessor, or a person who has an equitable interest through the lessor, whose rental payments are not based, either directly or indirectly, on the revenues or income from the CAIR NO<sub>x</sub> unit.

(28) "Renewable energy" means electricity derived from a renewable resource.



(29) "Renewable resource" means any of the following:

(a) A resource that derives electricity from any of the following:

1. A fuel cell that uses a renewable fuel, as determined by the public service commission.
2. Wave action.
3. Solar thermal electric or photovoltaic energy.
4. Wind power.
5. Geothermal technology.
6. Biomass.

(b) A resource that derives electricity from hydroelectric power other than nuclear power.

(c) Any other resource, except a conventional resource, that the public service commission has designated as a renewable resource in rules promulgated under s. 196.378(4), Stats.

(30) "Repowered" means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

- (a) Atmospheric or pressurized fluidized bed combustion.
- (b) Integrated gasification combined cycle.
- (c) Magnetohydrodynamics.
- (d) Direct and indirect coal-fired turbines.
- (e) Integrated gasification fuel cells.

(f) As determined by the administrator in consultation with the secretary of energy, a derivative of one or more of the technologies under pars. (a) to (e) and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

(31) "Solid waste incineration unit" means a stationary, fossil-fuel-fired boiler or stationary,

fossil-fuel-fired combustion turbine that is a “solid waste incineration unit” as defined in section 129(g)(1) of the Clean Air Act (42 USC 7429(g)(1)).

(32) "Unit" has the meaning given in s. NR 409.02(82).

(33) "Useful thermal energy" means, with regard to a cogeneration unit, thermal energy that is either:

(a) Made available to an industrial or commercial process, not a power production process, excluding any heat contained in condensate return or makeup water.

(b) Used in a heating application, such as space heating or hot water heating.

(c) Used in space cooling application, such as thermal energy used by an absorption chiller.

(34) "Utility power distribution system" means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

**NR 432.03 CAIR NO<sub>x</sub> annual allowance allocation.** The department shall use the procedures in this section for calculating and allocating NO<sub>x</sub> annual allowances for CAIR NO<sub>x</sub> units and CAIR renewable units.

(1) UNIT BASELINES. (a) The department shall calculate the baseline energy output of each CAIR NO<sub>x</sub> unit and each CAIR renewable unit, in MWh according to the following equations as appropriate:

1. For a CAIR NO<sub>x</sub> unit that is a cogeneration unit and that has operated for 5 or more consecutive calendar years, by using one of the following equations:

a. Use equation 1a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 1a is available for all units:

$$B = GE_{avg} + \left( \frac{TE_{avg}}{3.4} \right) \quad \text{Equation 1a}$$

where:

B is the unit baseline energy output made available by the cogeneration unit in MWh

$GE_{avg}$  is the average of the 3 highest annual amounts of the unit's annual gross electric output in MWh over the 5 year period identified in par. (b)

$TE_{avg}$  is the average of the 3 highest annual amounts of the unit's annual useful thermal energy in mmBtu over the 5 year period identified in par. (b)

3.4 is a conversion factor in MWh/mmBtu

b. Use equation 1b if more than one unit serves the same generator and unit-level data for equation 1a is not available for all units:

$$B_i = \left( GE_{Gen} + \frac{TE_T}{3.4} \right) \times \left( \frac{NC_i}{\sum_{j=1}^n NC_j} \right) \quad \text{Equation 1b}$$

where:

$B_i$  is the baseline energy output made available by cogeneration unit i in MWh

$GE_{Gen}$  is the average of the 3 highest annual amounts of the annual gross electric output in MWh for the generator served over the 5 year period identified in par. (b)

$TE_T$  is the average of the 3 highest annual amounts of annual useful thermal energy in mmBtu for the generator served over the 5 year period defined in par. (b)

3.4 is a conversion factor in MWh/mmBtu

$NC_i$  is the nameplate capacity of unit i

n is the number of units serving the same generator

2. For a CAIR NO<sub>x</sub> unit that is not a cogeneration unit and that has operated for 5 or more consecutive calendar years and for a CAIR renewable unit that has operated for 5 or more consecutive calendar years, by using one of the following equations as appropriate:

a. Use equation 2a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 2a is available for all units:

$$B = GE_{avg} \quad \text{Equation 2a}$$

where:

B is the unit baseline energy output made available by the CAIR NO<sub>x</sub> unit or the CAIR renewable unit in MWh

GE<sub>avg</sub> is the average of the 3 highest annual amounts of the unit's annual gross electric output in MWh over the 5 year period identified in par. (b)

b. Use equation 2b if more than one unit serves the same generator and unit-level data for equation 2a is not available for all units:

$$B_i = GE_{Gen} \times \left( \frac{NC_i}{\sum_{j=1}^n NC_j} \right) \quad \text{Equation 2b}$$

where:

B<sub>i</sub> is the baseline energy output made available by CAIR NO<sub>x</sub> unit i or CAIR renewable unit i in MWh

GE<sub>Gen</sub> is the average of the 3 highest annual amounts of the annual gross electric output in MWh for the generator served over the 5 year period identified in par. (b)

NC<sub>i</sub> is the nameplate capacity of unit i

n is the number of units serving the same generator

(b) 1. In 2007, the department shall calculate the unit baseline for each CAIR NO<sub>x</sub> unit for 2009 to 2014 using data for the years 2000 to 2004.

2. In 2011, the department shall calculate the unit baseline for each CAIR NO<sub>x</sub> unit and each CAIR renewable unit for 2015 to 2019 using the most recent 5 calendar years of data.

3. In 2016, and every fifth year thereafter, the department shall calculate the unit baseline for each CAIR NO<sub>x</sub> unit and each CAIR renewable unit for the next 5 year period using the most recent 5 calendar years of data.

(c) If a unit is retired in any year after 2008, the department shall calculate the unit's baseline by using the operating data for the most recent 5 calendar years until the unit has no operating data for the most recent 5 year period.

**Note:** Retired unit baseline example A unit is retired in 2010. In 2011, unit baselines are updated using 2005-2009 annual data. The retired unit would receive all allowances based upon its unit baseline for 2005-2009 operating data even though it is no longer operating. In 2016, the next unit baseline updating year, the baseline for the unit would be determined using the most recent 5 years of data – 2010 through 2014. If the unit had some operating data in 2010, it would receive minimal allowances in 2015 to 2019 based on the amount of electrical generation in 2010 until the next unit baseline update but would not have any operational data or allowances in 2020 or thereafter.

(d) In performing the unit baseline calculations under pars. (a) to (c), the department shall use data provided by EPA. If the required data is unavailable from the EPA, the department shall request the required data directly from the unit's CAIR designated representative. If the representative does not provide data within 60 days of the department's request, the department shall estimate the unit's baseline energy output using best available data.

(1m) STATE BASELINE. (a) Prior to 2011, the department shall establish the state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO<sub>x</sub> units listed in Table 1.

(b) In 2011 and annually thereafter, the department shall calculate an annual state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO<sub>x</sub> units and all CAIR renewable units.

(2) ALLOWANCE ALLOCATION FOR EXISTING UNITS. (a) In 2009 and annually thereafter, the department shall allocate to all CAIR NO<sub>x</sub> units and CAIR renewable units for which a unit baseline has been calculated under sub. (1), a total amount of CAIR NO<sub>x</sub> annual allowances equal to 93% of the tons of NO<sub>x</sub> emissions in the trading budget for Wisconsin in 40 CFR 97.140.

(b) The department shall allocate CAIR NO<sub>x</sub> annual allowances to each unit in an amount determined by equation 3:

$$A_i = MAP \times \left( \frac{B_i}{\sum_{j=1}^k B_j} \right) \quad \text{Equation 3}$$

where:

$A_i$  is the annual allocation of CAIR NO<sub>x</sub> annual allowances for unit  $i$  rounded to the nearest whole ton

MAP is the main allocation pool of CAIR NO<sub>x</sub> annual allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.140, minus the new unit set-aside established in sub. (3)

$B_i$  is the unit baseline established under sub. (1) for unit  $i$

$k$  is the number of all CAIR NO<sub>x</sub> units and all CAIR renewable units

(3) ALLOCATIONS FOR NEW UNITS. In 2009 and annually thereafter, the department shall allocate CAIR NO<sub>x</sub> annual allowances to CAIR NO<sub>x</sub> units for which a request is received under par. (b)

and that commenced operation on or after January 1, 2001 and for which a baseline energy output cannot be determined under sub. (1), in accordance with the following procedures:

(a) For 2009 and each year thereafter, the department shall establish a new unit set-aside consisting of all CAIR NO<sub>x</sub> annual allowances available for new units in that year. The new unit set-aside in each year shall be equal to 7% of the amount of tons of NO<sub>x</sub> emissions in the trading budget under 40 CFR 97.140 for Wisconsin.

(b) The CAIR designated representative of a CAIR NO<sub>x</sub> unit that commenced operation on or after January 1, 2001, may submit to the department a request to be allocated CAIR NO<sub>x</sub> annual allowances under this subsection, starting with 2009 or the first calendar year after the calendar year in which the CAIR NO<sub>x</sub> unit commences commercial operation, whichever is later, and until the first calendar year for which the unit is eligible for and is allocated CAIR NO<sub>x</sub> annual allowances under sub.

(2). The CAIR NO<sub>x</sub> annual allocation request shall be submitted on or before May 1 of the first calendar year for which the CAIR NO<sub>x</sub> annual allowances are requested and after the date on which the CAIR NO<sub>x</sub> unit commences commercial operation.

(c) In a CAIR NO<sub>x</sub> annual allocation request under par. (b), the CAIR designated representative may not request CAIR NO<sub>x</sub> annual allowances exceeding the CAIR NO<sub>x</sub> unit's total tons of NO<sub>x</sub> emissions during the calendar year immediately before the calendar year of the request.

(d) The department shall review each CAIR NO<sub>x</sub> annual allocation request submitted under par. (b) and allocate CAIR NO<sub>x</sub> annual allowances for each calendar year as follows:

1. The department shall establish the maximum amount of new unit set-aside CAIR NO<sub>x</sub> annual allowances a unit is eligible for based upon a request submitted under par. (b).

2. On or after July 31 of each calendar year, the department shall determine the sum of all CAIR NO<sub>x</sub> annual allowances established under subd. 1. for all new units in the calendar year.

3. If the amount of CAIR NO<sub>x</sub> annual allowances in the new unit set-aside for the calendar year under par. (a) is greater than or equal to the sum determined under subd. 2., the department shall allocate the amount of CAIR NO<sub>x</sub> annual allowances determined under subd. 1. to each CAIR NO<sub>x</sub> unit for which an allocation request was submitted.

4. If the amount of the CAIR NO<sub>x</sub> annual allowances in the new unit set-aside for the calendar year under par. (a) is less than the sum determined under subd. 2., the department shall allocate to each CAIR NO<sub>x</sub> unit for which the department established a maximum amount under subd. 1. greater than zero, an amount determined using equation 4:

$$N_i = R_i \times \left( \frac{NUSA}{\sum_{j=1}^k R_j} \right) \quad \text{Equation 4}$$

where:

$N_i$  is the annual allocation of annual set-aside allowances for new unit  $i$  for the calendar year rounded to the nearest whole ton

$R_i$  is the amount of CAIR NO<sub>x</sub> annual allowances the department determined unit  $i$  is eligible for under subd. 1.

NUSA is the new unit set-aside established under par. (a)

$k$  is the number of units for which the department established an amount greater than 0 under subd. 1.

(e) The department shall notify each CAIR designated representative that submitted an allocation request under par. (b) of the amount of CAIR NO<sub>x</sub> annual allowances allocated for the calendar year to the CAIR NO<sub>x</sub> unit covered by the request.

(4) ALLOCATION OF REMAINING NEW UNIT SET-ASIDE ALLOWANCES. After completion of the procedures under sub. (3), any CAIR NO<sub>x</sub> annual allowances remaining in the new unit



set-aside for the calendar year shall be allocated to the CAIR NO<sub>x</sub> units that were allocated CAIR NO<sub>x</sub> annual allowances under sub. (2) for the calendar year in an amount determined using equation 5:

$$X_i = U \times \left( \frac{A_i}{MAP} \right) \quad \text{Equation 5}$$

where:

X<sub>i</sub> is the allocation of remaining new unit set-aside annual allowances for unit i rounded to the nearest whole ton

U is the amount of unallocated new unit set-aside allowances in tons

A<sub>i</sub> is the annual allocation of CAIR NO<sub>x</sub> annual allowances for unit i calculated using equation 3

MAP is the main allocation pool of CAIR NO<sub>x</sub> annual allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.140 minus the new unit set-aside established in sub. (3)

(5) CAIR NO<sub>x</sub> ANNUAL ALLOCATIONS FOR 2009-2014. The CAIR NO<sub>x</sub> annual allocations for 2009 to 2014 for individual CAIR NO<sub>x</sub> units are listed in Table 1.

**Table 1**  
**CAIR NO<sub>x</sub> Annual Allocations for 2009 to 2014 by CAIR NO<sub>x</sub> Unit**  
(in tons of CAIR NO<sub>x</sub> allowances)

Unit Location		2009	2010	2011	2012	2013	2014
Alma	B4	692	692	692	692	692	692
Alma	B5	703	703	703	703	703	703
Bay Front	1	79	79	79	79	79	79
Bay Front	2	70	70	70	70	70	70
Bay Front	5	109	109	109	109	109	109
Blackhawk	3	8	8	8	8	8	8
Blackhawk	4	7	7	7	7	7	7
Blount Street	3	5	5	5	5	5	5
Blount Street	5	7	7	7	7	7	7
Blount Street	6	9	9	9	9	9	9
Blount Street	7	71	71	71	71	71	71
Blount Street	8	168	168	168	168	168	168
Blount Street	9	194	194	194	194	194	194
Blount Street	11	2	2	2	2	2	2

Columbia	1	3061	3061	3061	3061	3061	3061
Columbia	2	2944	2944	2944	2944	2944	2944
Concord	1	12	12	12	12	12	12
Concord	2	14	14	14	14	14	14
Concord	3	11	11	11	11	11	11
Concord	4	10	10	10	10	10	10
Depere Energy Center	B01	124	124	124	124	124	124
Edgewater (4050)	3	338	338	338	338	338	338
Edgewater (4050)	4	1576	1576	1576	1576	1576	1576
Edgewater (4050)	5	2136	2136	2136	2136	2136	2136
French Island	3	4	4	4	4	4	4
French Island	4	4	4	4	4	4	4
Genoa	1	1793	1793	1793	1793	1793	1793
Germantown Power Plant	1	4	4	4	4	4	4
Germantown Power Plant	2	3	3	3	3	3	3
Germantown Power Plant	3	5	5	5	5	5	5
Germantown Power Plant	4	4	4	4	4	4	4
Germantown Power Plant	5	25	25	25	25	25	25
J P Madgett	B1	1900	1900	1900	1900	1900	1900
Manitowoc	6	96	96	96	96	96	96
Manitowoc	7	117	117	117	117	117	117
Manitowoc	8	129	129	129	129	129	129
Neenah Energy Facility	CT01	100	100	100	100	100	100
Neenah Energy Facility	CT02	101	101	101	101	101	101
Nelson Dewey	1	517	517	517	517	517	517
Nelson Dewey	2	510	510	510	510	510	510
Paris	1	17	17	17	17	17	17
Paris	2	21	21	21	21	21	21
Paris	3	22	22	22	22	22	22
Paris	4	15	15	15	15	15	15
Pleasant Prairie	1	3528	3528	3528	3528	3528	3528
Pleasant Prairie	2	3578	3578	3578	3578	3578	3578
Port Washington Generating Station	1	220	220	220	220	220	220
Port Washington Generating Station	2	192	192	192	192	192	192
Port Washington Generating Station	3	223	223	223	223	223	223
Pulliam	3	101	101	101	101	101	101
Pulliam	4	123	123	123	123	123	123
Pulliam	5	268	268	268	268	268	268
Pulliam	6	379	379	379	379	379	379
Pulliam	7	470	470	470	470	470	470
Pulliam	8	765	765	765	765	765	765
Rock River	1	116	116	116	116	116	116
Rock River	2	95	95	95	95	95	95

Rock River	5	14	14	14	14	14	14
Rock River	6	21	21	21	21	21	21
Sheepskin	1	1	1	1	1	1	1
South Fond Du Lac	CT1	29	29	29	29	29	29
South Fond Du Lac	CT2	24	24	24	24	24	24
South Fond Du Lac	CT3	18	18	18	18	18	18
South Fond Du Lac	CT4	14	14	14	14	14	14
South Oak Creek	5	1173	1173	1173	1173	1173	1173
South Oak Creek	6	1200	1200	1200	1200	1200	1200
South Oak Creek	7	1618	1618	1618	1618	1618	1618
South Oak Creek	8	1630	1630	1630	1630	1630	1630
Valley (WEPCO)	1	224	224	224	224	224	224
Valley (WEPCO)	2	224	224	224	224	224	224
Valley (WEPCO)	3	224	224	224	224	224	224
Valley (WEPCO)	4	224	224	224	224	224	224
West Marinette	31	10	10	10	10	10	10
West Marinette	32	10	10	10	10	10	10
West Marinette	33	77	77	77	77	77	77
West Marinette	34	47	47	47	47	47	47
Weston	1	323	323	323	323	323	323
Weston	2	535	535	535	535	535	535
Weston	3	2017	2017	2017	2017	2017	2017
Weston	32	22	22	22	22	22	22
Wheaton	1	9	9	9	9	9	9
Wheaton	2	9	9	9	9	9	9
Wheaton	3	9	9	9	9	9	9
Wheaton	4	9	9	9	9	9	9
Wheaton	5	9	9	9	9	9	9
Wheaton	6	9	9	9	9	9	9
Whitewater Cogeneration Facility	1	379	379	379	379	379	379

**NR 432.04 Compliance supplement pool.** In addition to the CAIR NO<sub>x</sub> annual allowances allocated under s. NR 432.03, the department may allocate for calendar year 2009 additional allowances from the compliance supplement pool up to the amount designated by the EPA in 40 CFR 97.143 for the purposes identified in this section.

(1) EARLY REDUCTION CREDITS. (a) The department may allocate CAIR NO<sub>x</sub> annual allowances from the compliance supplement pool to an electric generating unit if the unit's CAIR designated representative demonstrates that it achieved early reductions of NO<sub>x</sub> emissions. To be eligible

for early reduction credits, the unit's CAIR designated representative shall demonstrate all of the following:

1. The CAIR NO<sub>x</sub> unit's average annual NO<sub>x</sub> emission rate for 2007 or 2008 is less than 0.15 lb/mmBtu based on heat input.

2. If the unit is included in a NO<sub>x</sub> averaging plan under s. NR 409.065(7) for 2007 or 2008, the NO<sub>x</sub> averaging plan has an actual weighted average NO<sub>x</sub> emission rate for 2007 or 2008 equal to or less than the actual weighted average NO<sub>x</sub> emission rate for preceding year.

3. Compared to the preceding year, the CAIR NO<sub>x</sub> unit achieves NO<sub>x</sub> emission reductions in both 2007 and 2008.

(b) The CAIR designated representative of the unit may request early reduction credits, and allocation of CAIR NO<sub>x</sub> annual allowances from the compliance supplement pool for early reduction credits, in accordance with the following:

1. The CAIR designated representative shall report the NO<sub>x</sub> emissions rate and the heat input of the unit based on monitoring data required in accordance with 40 CFR part 97, subpart HH in each calendar year for which early reduction credit is requested.

2. The CAIR designated representative of a CAIR NO<sub>x</sub> unit shall submit to the department by July 31, 2009 a request for allocation of an amount of CAIR NO<sub>x</sub> annual allowances from the compliance supplement pool. The request may not exceed the value determined using equation 6:

$$ER = \frac{(HI_{2007} \times \Delta EM_{2007}) + (HI_{2008} \times \Delta EM_{2008})}{2000} \quad \text{Equation 6}$$

where:

ER is the amount of CAIR NO<sub>x</sub> annual allowances a CAIR designated representative may request based on early emission reductions in 2007 and 2008 rounded to the nearest ton

HI<sub>2007</sub> is the total heat input to the unit for the calendar year 2007 in mmBtu

$HI_{2008}$  is the total heat input to the unit for the calendar year 2008 in mmBtu

2000 is a conversion factor in lb/ton

$\Delta EM_{2007}$  and  $\Delta EM_{2008}$  are the differences between the actual emission rates for 2007 and 2008 respectively and the target emission rate for early reductions in lbs  $NO_x$ /mmBtu. If the unit's actual average emission rate for the calendar year is greater than 0.15,  $\Delta EM_{year}$  is calculated using equation 7. If the unit's actual average emission rate for the calendar year is equal to or less than 0.15,  $\Delta EM_{year}$  equals 1.

$$\Delta EM_{year} = Actual_{year} - 0.15 \quad \text{Equation 7}$$

where:

$Actual_{year}$  is the unit's actual average emission rate for calendar year for 2007 or 2008 in lbs  $NO_x$ /mmBtu determined in accordance with 40 CFR part 97 subpart HH

0.15 is the target emission rate for early reductions in lbs  $NO_x$ /mmBtu

(2) ELECTRIC RELIABILITY. The department may allocate CAIR  $NO_x$  annual allowances from the compliance supplement pool to any CAIR  $NO_x$  unit for which the unit's CAIR designated representative demonstrates that compliance with the CAIR  $NO_x$  allocation under s. NR 432.03, Table 1 for calendar year 2009 would create an undue risk to the reliability of electricity supply during 2009. The CAIR designated representative of the unit may request the allocation of CAIR  $NO_x$  annual allowances from the compliance supplement pool in order to avoid an undue risk to the reliability of electricity supply during 2009 in accordance with the following:

(a) The CAIR designated representative of the CAIR  $NO_x$  unit shall submit to the department by July 31, 2009 a request for allocation of an amount of CAIR  $NO_x$  annual allowances from the compliance supplement pool not exceeding the minimum amount of CAIR  $NO_x$  annual allowances necessary to remove the undue risk to the reliability of electricity supply.

(b) In the request under par. (a), the CAIR designated representative of the CAIR NO<sub>x</sub> unit shall demonstrate that, in the absence of allocation to the unit of the amount of CAIR NO<sub>x</sub> annual allowances requested, the unit's compliance with CAIR NO<sub>x</sub> allocation under s. NR 432.03, Table 1 for calendar year 2009 would create an undue risk to the reliability of electricity supply during that year. This demonstration shall include a showing by the unit's CAIR designated representative that it would not be feasible to do both of the following:

1. Obtain a sufficient amount of electricity from other electricity generation facilities for compliance with the CAIR NO<sub>x</sub> allocations under s. NR 432.03, Table 1 to prevent the undue risk.

2. Obtain under subs. (1) and (3), or otherwise obtain, a sufficient amount of CAIR NO<sub>x</sub> annual allowances to prevent the undue risk.

(3) ALLOCATION PROCEDURE. The department shall review each request submitted under subs. (1) and (2) and shall allocate CAIR NO<sub>x</sub> annual allowances for calendar year 2009 to CAIR NO<sub>x</sub> units covered by the requests as follows:

(a) Upon receipt of each request, the department shall determine whether the amount of the CAIR NO<sub>x</sub> annual allowances requested from the compliance supplement pool meets the requirements of sub. (1) or (2).

(b) If the amount of CAIR NO<sub>x</sub> annual allowances in the compliance supplement pool is greater than or equal to the total amount of CAIR NO<sub>x</sub> annual allowances in all requests submitted under subs. (1) and (2), the department shall allocate to each CAIR NO<sub>x</sub> unit covered by the requests the amount of CAIR NO<sub>x</sub> annual allowances requested, and determined eligible for under par. (a).

(c) If the state's compliance supplement pool has a smaller amount of CAIR NO<sub>x</sub> annual allowances than the total amount of CAIR NO<sub>x</sub> annual allowances in all requests submitted under subs. (1) and (2), as adjusted under par. (a), the department shall allocate CAIR NO<sub>x</sub> annual allowances to each CAIR NO<sub>x</sub> unit covered by such requests according to equation 8:

$$Z_i = Y_i \times \left( \frac{CSP}{\sum_{j=1}^k Y_j} \right) \quad \text{Equation 8}$$

where:

$Z_i$  is the amount of CAIR  $\text{NO}_x$  annual allowances allocated to unit  $i$  from the state's compliance supplement pool rounded to the nearest whole ton

$Y_i$  is the amount of CAIR  $\text{NO}_x$  annual allowances requested for unit  $i$  under subs. (1) and (2), as determined eligible under par. (a)

CSP is the amount of CAIR  $\text{NO}_x$  annual allowances in the state's compliance supplement pool as provided in 40 CFR 97.143

$k$  is the number of units which the department deemed eligible for requests made under subs. (1) and (2)

(d) By November 15, 2009, the department shall determine the allocations under par. (b) or (c), as applicable. The department shall make available to the public each determination of CAIR  $\text{NO}_x$  annual allowances under par. (c) and shall provide an opportunity for submission of objections to the determination. Objections shall be limited to addressing whether the determination is in accordance with sub. (1) or (2) and par. (b) or (c) and data correction. Based on any objections, the department may adjust each determination to the extent necessary to ensure that it is in accordance with sub. (1) or (2) and par. (b) or (c) and the data is correct.

(e) By December 15, 2009, the department shall notify the administrator of the allocations made under par. (d).

**NR 432.05 CAIR NO<sub>x</sub> ozone season allowance allocation.** The department shall use the procedures in this section for calculating and allocating NO<sub>x</sub> ozone season allowances for CAIR NO<sub>x</sub> units and CAIR renewable units.

(1) UNIT BASELINES. (a) The department shall calculate the baseline energy output of each CAIR NO<sub>x</sub> unit and each CAIR renewable unit, in MWh according to the following equations as appropriate:

1. For a CAIR NO<sub>x</sub> unit that is a cogeneration unit and that has operated for 5 or more consecutive calendar years, by using one of the following equations:

a. Use equation 9a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 9a is available for all units:

$$B = GE_{avg} + \left( \frac{TE_{avg}}{3.4} \right) \quad \text{Equation 9a}$$

where:

B is the unit baseline energy output made available by the cogeneration unit in MWh

GE<sub>avg</sub> is the average of the 3 highest annual amounts of the unit's ozone season gross electric output in MWh over the 5 year period identified in par. (b)

TE<sub>avg</sub> is the average of the 3 highest annual amounts of the unit's ozone season useful thermal energy in mmBtu over the 5 year period identified in par. (b)

3.4 is a conversion factor in MWh/mmBtu

b. Use equation 9b if more than one unit serves the same generator and unit-level data for equation 9a is not available for all units:



$$B_i = \left( GE_{Gen} + \frac{TE_T}{3.4} \right) \times \left( \frac{NC_i}{\sum_{j=1}^n NC_j} \right) \quad \text{Equation 9b}$$

where:

$B_i$  is the baseline energy output made available by cogeneration unit  $i$  in MWh

$GE_{Gen}$  is the average of the 3 highest annual amounts of the ozone season gross electric output in MWh for the generator served over the 5 year period identified in par. (b)

$TE_T$  is the average of the 3 highest annual amounts of ozone season useful thermal energy in mmBtu for the generator served over the 5 year period defined in par. (b)

3.4 is a conversion factor in MWh/mmBtu

$NC_i$  is the nameplate capacity of unit  $i$

$n$  is the number of units serving the same generator

2. For a CAIR  $NO_x$  unit that is not a cogeneration unit and that has operated for 5 or more consecutive calendar years and a CAIR renewable unit that has operated for 5 or more consecutive calendar years, by using one of the following equations as appropriate:

a. Use equation 10a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 10a is available for all units:

$$B = GE_{avg} \quad \text{Equation 10a}$$

where:

$B$  is the unit baseline energy output made available by the CAIR  $NO_x$  unit or the CAIR renewable unit in MWh

$GE_{avg}$  is the average of the 3 highest annual amounts of the unit's ozone season gross electric output in MWh over the 5 year period identified in par. (b)

b. Use equation 10b if more than one unit serves the same generator and unit-level data for equation 10a is not available for all units:

$$B_i = GE_{Gen} \times \left( \frac{NC_i}{\sum_{j=1}^n NC_j} \right) \quad \text{Equation 10b}$$

where:

$B_i$  is the baseline energy output made available by CAIR  $NO_x$  unit i or CAIR renewable unit i in MWh

$GE_{Gen}$  is the average of the 3 highest annual amounts of the ozone season gross electric output in MWh for the generator served over the 5 year period identified in par. (b)

$NC_i$  is the nameplate capacity of unit i

n is the number of units serving the same generator

(b) 1. In 2007, the department shall calculate the unit baseline for each CAIR  $NO_x$  unit for 2009 to 2014 using ozone season data for the years 2000 to 2004.

2. In 2011, the department shall calculate the unit baseline for each CAIR  $NO_x$  unit and each CAIR renewable unit for 2015 to 2019 using the most recent 5 calendar years of ozone season data.

3. In 2016, and every fifth year thereafter, the department shall calculate the unit baseline for each CAIR  $NO_x$  unit and each CAIR renewable unit for the next 5 year period using the most recent 5 calendar years of ozone season data.

(c) If a unit is retired in any year after 2008, the department shall calculate the unit's baseline by using the ozone season operating data for the most recent 5 calendar years until the unit has no operating data for the most recent 5 year period.

**Note:** Retired unit baseline example A unit is retired in 2010. In 2011, unit baselines are updated using 2005-2009 ozone season data. The retired unit would receive all allowances based upon its unit baseline for 2005-2009 ozone season operating data even though it is no longer operating. In 2016, the next unit baseline updating year, the baseline for the unit would be determined using the most recent 5 years of data – 2010 through 2014. If the unit had some operating data in the 2010, it would receive minimal allowances in 2015 to 2019 based on the amount of electrical generation in 2010 ozone season until the next unit baseline update but would not have any operational data or allowances for 2020 or thereafter.

(d) In performing the unit baseline calculations under pars. (a) to (c), the department shall use data provided by EPA. If the required data is unavailable from the EPA, the department shall request the required data directly from the unit's CAIR designated representative. If the representative does not provide data within 60 days of the department's request, the department shall estimate the unit's baseline energy output using best available data.

(1m) STATE BASELINE. (a) Prior to 2011, the department shall establish the state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO<sub>x</sub> units listed in Table 2.

(b) In 2011 and annually thereafter, the department shall calculate an annual state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO<sub>x</sub> units and all CAIR renewable units.

(2) ALLOWANCE ALLOCATION FOR EXISTING UNITS. (a) In 2009 and annually thereafter, the department shall allocate to all CAIR NO<sub>x</sub> units and CAIR renewable units for which a unit baseline has been calculated under sub. (1), a total amount of CAIR NO<sub>x</sub> ozone season allowances equal to 93% of the tons of NO<sub>x</sub> emissions in the trading budget for Wisconsin in 40 CFR 97.340.

(b) The department shall allocate CAIR NO<sub>x</sub> ozone season allowances to each unit in an amount determined by equation 11:

$$A_i = MAP \times \left( \frac{B_i}{\sum_{j=1}^k B_j} \right) \quad \text{Equation 11}$$

where:

$A_i$  is the annual allocation of CAIR NO<sub>x</sub> ozone season allowances for unit  $i$  rounded to the nearest whole ton

MAP is the main allocation pool of CAIR NO<sub>x</sub> ozone season allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.340, minus the new unit set-aside established in sub. (3)

$B_i$  is the unit baseline established under sub. (1) for unit  $i$

$k$  is the number of all CAIR NO<sub>x</sub> units and all CAIR renewable units

(3) ALLOCATIONS FOR NEW UNITS. In 2009 and annually thereafter, the department shall allocate CAIR NO<sub>x</sub> ozone season allowances to CAIR NO<sub>x</sub> units for which a request is received under par. (b) and that commenced operation on or after January 1, 2001 and for which a baseline energy output cannot be determined under sub. (1), in accordance with the following procedures:

(a) For 2009 and each year thereafter, the department shall establish a new unit set-aside consisting of all CAIR NO<sub>x</sub> ozone season allowances available for new units in that year. The new unit set-aside in each year shall be equal to 7% of the amount of tons of NO<sub>x</sub> emissions in the trading budget under 40 CFR 97.340 for Wisconsin.

(b) The CAIR designated representative of a CAIR NO<sub>x</sub> unit that commenced operation on or after January 1, 2001, may submit to the department a request to be allocated CAIR NO<sub>x</sub> ozone season allowances under this subsection, starting with 2009 or the first calendar year after the calendar year in

which the CAIR NO<sub>x</sub> unit commences commercial operation, whichever is later, and until the first calendar year for which the unit is eligible for and is allocated CAIR NO<sub>x</sub> ozone season allowances under sub. (2). The CAIR NO<sub>x</sub> ozone season allocation request shall be submitted on or before May 1 of the first calendar year for which the CAIR NO<sub>x</sub> ozone season allowances are requested and after the date on which the CAIR NO<sub>x</sub> unit commences commercial operation.

(c) In a CAIR NO<sub>x</sub> ozone season allocation request under par. (b), the CAIR designated representative may not request CAIR NO<sub>x</sub> ozone season allowances exceeding the CAIR NO<sub>x</sub> unit's total tons of NO<sub>x</sub> emissions during the ozone season immediately before the calendar year of the request.

(d) The department shall review each CAIR NO<sub>x</sub> ozone season allocation request submitted under par. (b) and allocate CAIR NO<sub>x</sub> ozone season allowances for each calendar year as follows:

1. The department shall establish the maximum amount of new unit set-aside CAIR NO<sub>x</sub> ozone season allowances a unit is eligible for based upon a request submitted under par. (b).

2. On or after July 31 of each calendar year, the department shall determine the sum of all CAIR NO<sub>x</sub> ozone season allowances established under subd. 1. for all new units in the calendar year.

3. If the amount of CAIR NO<sub>x</sub> ozone season allowances in the new unit set-aside for the calendar year under par. (a) is greater than or equal to the sum determined under subd. 2., the department shall allocate the amount of CAIR NO<sub>x</sub> ozone season allowances determined under subd. 1. to each CAIR NO<sub>x</sub> unit for which an allocation request was submitted.

4. If the amount of the CAIR NO<sub>x</sub> ozone season allowances in the new unit set-aside for the calendar year under par. (a) is less than the sum determined under subd. 2., the department shall allocate to each CAIR NO<sub>x</sub> unit for which the department established a maximum amount under subd. 1., greater than zero, an amount determined using equation 12:

$$N_i = R_i \times \left( \frac{NUSA}{\sum_{j=1}^k R_j} \right) \quad \text{Equation 12}$$

where:

$N_i$  is the annual allocation of ozone season set-aside allowances for new unit  $i$  for the calendar year rounded to the nearest whole ton

$R_i$  is the amount of CAIR  $\text{NO}_x$  ozone season allowances the department determined unit  $i$  is eligible for under subd. 1.

$NUSA$  is the new unit set-aside established under par. (a)

$k$  is the number of units for which the department established an amount greater than 0 under subd. 1.

(e) The department shall notify each CAIR designated representative that submitted an allocation request under par. (b) of the amount of CAIR  $\text{NO}_x$  ozone season allowances allocated for the calendar year to the CAIR  $\text{NO}_x$  unit covered by the request.

(4) ALLOCATION OF REMAINING NEW UNIT SET-ASIDE ALLOWANCES. After completion of the procedures under sub. (3), any CAIR  $\text{NO}_x$  ozone season allowances remaining in the new unit set-aside for the calendar year shall be allocated to the CAIR  $\text{NO}_x$  units that were allocated CAIR  $\text{NO}_x$  ozone season allowances under sub. (2) for the calendar year in an amount determined using equation 13:

$$X_i = U \times \left( \frac{A_i}{MAP} \right) \quad \text{Equation 13}$$

where:

$X_i$  is the allocation of remaining new unit set-aside ozone season allowances for unit  $i$  rounded to the nearest whole ton

U is the amount of unallocated new unit set-aside allowances

$A_i$  is the annual allocation of CAIR NO<sub>x</sub> ozone season allowances for unit i calculated using equation 11

MAP is the main allocation pool of CAIR NO<sub>x</sub> ozone season allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.340 minus the new unit set-aside established in sub. (3)

(5) CAIR NO<sub>x</sub> OZONE SEASON ALLOCATIONS FOR 2009-2014. The CAIR NO<sub>x</sub> ozone season allocations for 2009 to 2014 for individual CAIR NO<sub>x</sub> units are listed in Table 2.

**Table 2**  
**CAIR NO<sub>x</sub> Ozone Season Allocations for 2009 to 2014 by CAIR NO<sub>x</sub> Unit**  
(in tons of CAIR NO<sub>x</sub> allowances)

Unit Location		2009	2010	2011	2012	2013	2014
Alma	B4	277	277	277	277	277	277
Alma	B5	283	283	283	283	283	283
Bay Front	1	33	33	33	33	33	33
Bay Front	2	31	31	31	31	31	31
Bay Front	5	46	46	46	46	46	46
Blackhawk	3	4	4	4	4	4	4
Blackhawk	4	3	3	3	3	3	3
Blount Street	3	3	3	3	3	3	3
Blount Street	5	4	4	4	4	4	4
Blount Street	6	5	5	5	5	5	5
Blount Street	7	31	31	31	31	31	31
Blount Street	8	75	75	75	75	75	75
Blount Street	9	90	90	90	90	90	90
Blount Street	11	1	1	1	1	1	1
Columbia	1	1397	1397	1397	1397	1397	1397
Columbia	2	1376	1376	1376	1376	1376	1376
Concord	1	8	8	8	8	8	8
Concord	2	9	9	9	9	9	9
Concord	3	7	7	7	7	7	7
Concord	4	8	8	8	8	8	8
Depere Energy Center	B01	61	61	61	61	61	61
Edgewater (4050)	3	148	148	148	148	148	148
Edgewater (4050)	4	735	735	735	735	735	735

Edgewater (4050)	5	956	956	956	956	956	956
French Island	3	2	2	2	2	2	2
French Island	4	2	2	2	2	2	2
Genoa	1	752	752	752	752	752	752
Germantown Power Plant	1	2	2	2	2	2	2
Germantown Power Plant	2	1	1	1	1	1	1
Germantown Power Plant	3	2	2	2	2	2	2
Germantown Power Plant	4	2	2	2	2	2	2
Germantown Power Plant	5	15	15	15	15	15	15
J P Madgett	B1	820	820	820	820	820	820
Manitowoc	6	34	34	34	34	34	34
Manitowoc	7	34	34	34	34	34	34
Manitowoc	8	34	34	34	34	34	34
Neenah Energy Facility	CT01	61	61	61	61	61	61
Neenah Energy Facility	CT02	59	59	59	59	59	59
Nelson Dewey	1	233	233	233	233	233	233
Nelson Dewey	2	227	227	227	227	227	227
Paris	1	12	12	12	12	12	12
Paris	2	14	14	14	14	14	14
Paris	3	15	15	15	15	15	15
Paris	4	10	10	10	10	10	10
Pleasant Prairie	1	1533	1533	1533	1533	1533	1533
Pleasant Prairie	2	1583	1583	1583	1583	1583	1583
Port Washington Generating Station	1	107	107	107	107	107	107
Port Washington Generating Station	2	103	103	103	103	103	103
Port Washington Generating Station	3	110	110	110	110	110	110
Pulliam	3	45	45	45	45	45	45
Pulliam	4	53	53	53	53	53	53
Pulliam	5	113	113	113	113	113	113
Pulliam	6	153	153	153	153	153	153
Pulliam	7	220	220	220	220	220	220
Pulliam	8	312	312	312	312	312	312
Rock River	1	51	51	51	51	51	51
Rock River	2	53	53	53	53	53	53
Rock River	5	6	6	6	6	6	6
Rock River	6	9	9	9	9	9	9
Sheepskin	1	1	1	1	1	1	1
South Fond Du Lac	CT1	16	16	16	16	16	16
South Fond Du Lac	CT2	14	14	14	14	14	14
South Fond Du Lac	CT3	10	10	10	10	10	10
South Fond Du Lac	CT4	7	7	7	7	7	7
South Oak Creek	5	544	544	544	544	544	544
South Oak Creek	6	510	510	510	510	510	510



South Oak Creek	7	681	681	681	681	681	681
South Oak Creek	8	731	731	731	731	731	731
Valley (WEPCO)	1	95	95	95	95	95	95
Valley (WEPCO)	2	95	95	95	95	95	95
Valley (WEPCO)	3	95	95	95	95	95	95
Valley (WEPCO)	4	95	95	95	95	95	95
West Marinette	31	4	4	4	4	4	4
West Marinette	32	4	4	4	4	4	4
West Marinette	33	33	33	33	33	33	33
West Marinette	34	20	20	20	20	20	20
Weston	1	136	136	136	136	136	136
Weston	2	231	231	231	231	231	231
Weston	3	843	843	843	843	843	843
Weston	32	19	19	19	19	19	19
Wheaton	1	4	4	4	4	4	4
Wheaton	2	4	4	4	4	4	4
Wheaton	3	4	4	4	4	4	4
Wheaton	4	4	4	4	4	4	4
Wheaton	5	4	4	4	4	4	4
Wheaton	6	4	4	4	4	4	4
Whitewater Cogeneration Facility	1	153	153	153	153	153	153

**NR 432.06 Timing requirements for CAIR NO<sub>x</sub> allowance allocations. (1) ALLOCATIONS FOR 2009-2014.** By April 30, 2007 or within 30 days after the effective date of this chapter ...[revisor insert date], the department shall notify the administrator of the CAIR NO<sub>x</sub> allocations for 2009 to 2014 for the units listed in Tables 1 and 2.

**(2) ALLOCATIONS FOR 2015 AND LATER YEARS.** (a) By July 31, 2011 and July 31 of each year thereafter, the department shall determine the CAIR NO<sub>x</sub> allocations, in accordance with ss. NR 432.03(1) and (2) and 432.05(1) and (2), which shall apply to CAIR NO<sub>x</sub> units and CAIR renewable units in the 4th year after the determination.

**Note:** For example, in 2011, the department shall determine the allocations applicable in 2015 and in 2012, allocations for 2016.

(b) By October 31, 2011 and October 31 of each year thereafter, the department shall notify the administrator of each unit's allocation of CAIR NO<sub>x</sub> allowances under par. (a) for the fourth year after the year of the notification.

(3) ALLOCATIONS FOR NEW UNITS. (a) By July 31, 2009 and July 31 of each year thereafter, the department shall determine the CAIR NO<sub>x</sub> allocations, in accordance with ss. NR 432.03(1), (3) and (4) and 432.05(1), (3) and (4), for the year of the applicable determination under this section.

(b) By October 31, 2009 and October 31 of each year thereafter, the department shall notify the administrator of each unit's allocation of CAIR NO<sub>x</sub> allowances under par. (a) for the year of the notification.

(4) PUBLIC COMMENTS. The department shall make available to the public each determination of CAIR NO<sub>x</sub> allowances under sub. (1), (2) or (3) and shall provide an opportunity for submission of objections to the determination. Objections shall be limited to addressing whether the determination is in accordance with ss. NR 432.03 and 432.05. Based on any objections, the department may adjust each determination to the extent necessary to ensure that it is in accordance with ss. NR 432.03 and 432.05.

**NR 432.07 Superior environmental performance.** (1) The voluntary activities listed in this section constitute superior environmental performance as defined in s. 299.83(1)(g), Stats., for participation in Tier II of the environmental results program under s. 299.83, Stats.:

(a) Agreeing never to use a specified amount of CAIR NO<sub>x</sub> allowances.

(b) Agreeing not to use a specified amount of CAIR NO<sub>x</sub> allowances prior to a specified future year.

(c) Agreeing to reduce emissions of other pollutants such as sulfur dioxides, mercury, carbon dioxide or heavy metals beyond levels required by federal and state laws.

(2) The level of environmental benefit provided by an entity that agrees to never use or to defer the use of a specified amount of CAIR NO<sub>x</sub> allowances shall be based on the number of CAIR NO<sub>x</sub> allowances involved and the number of years in which the allowances may not be used.

(3) The environmental benefit provided by the reduction of emissions of pollutants other than NO<sub>x</sub> shall be based on the types of pollutants reduced and the amount of reduction beyond federal and state requirements.

(4) In the context of a participation contract negotiated under the authority of s. 299.83(6), Stats., reductions in recordkeeping, reporting or other administrative requirements related to environmental regulations may be appropriate incentives for the activities described in sub. (1). The amount of flexibility provided shall be proportional to the environmental benefits provided by the participant.

SECTION 2. EFFECTIVE DATE. This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 3. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on \_\_\_\_\_.

Dated at Madison, Wisconsin \_\_\_\_\_.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By \_\_\_\_\_  
Scott Hassett, Secretary

(SEAL)